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# **JOURNAL**

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PALEONTOLOGY.—A Cotylosaur from the Upper Triassic of western Texas. 1 E. C. Case, University of Michigan.

The expedition from the Museum of Geology of the University of Michigan to the Upper Triassic beds of western Texas, in the summer of 1927, recovered a small fragment of a lower jaw which proves to be that of a Cotylosaur of the family Procolophonidae. The specimen, number 2338 of the Museum collection, is the type of a new genus and species for which the name Trilophosaurus buettneri is proposed. The specimen is of peculiar interest in that it is the first evidence of the presence of Cotylosauria in North America in Triassic time.

The fragment contains three complete teeth and the roots of four others. The first tooth was small and cylindrical, as shown by the broken root, behind this the teeth are set transversely in the jaw and increase in size regularly toward the rear. The three complete teeth

are very similar. The teeth are obscurely the codont in insertion; they appear to be acrodont and the fibres of bones can be seen running from the root to the wall of the alveolus. Only when the teeth are broken does the root and the alveolus become apparent. Fig. 1.-Trilopho-This peculiarity of attachment is a characteristic of saurus the family, as all workers upon the various genera Case, n. gen. and sp., have noted it or have been bothered by it in describ- fragment of lower jaw, oblique view ing the specimens. The complete teeth show a from above downthin upper cutting edge, divided into three lobes ward and backward by slight depressions in the edge. The sides swell out  $(\times 2)$ .

slightly and then contract sharply to the root. The upper teeth fitted between the lower teeth when the jaws were closed, interlocking closely.

<sup>&</sup>lt;sup>1</sup> Received February 23, 1928.

In the other members of the family, *Procolophon* and *Thelegnathus* (?) from South Africa, *Telerpeton* from Elgin in Scotland, and *Sclerosaurus* and *Koilioskiosaurus* from Germany, the transverse expansion of the teeth is shown in varying degree. In *Telerpeton* the cutting edge is divided into two lobes. The nearest group which shows a similar arrangement of the teeth is the Cotylosaurian family Diadectidae from the Permian beds of North America.

BOTANY.—New plants from Central America.—XII. PAUL C. STANDLEY, U. S. National Museum.<sup>1</sup>

Descriptions of further representatives of the family Rubiaceae are presented here. There are proposed eight new species of *Hoffmannia*, a genus whose species seem to be almost unlimited in the mountains of Costa Rica, where the group is best developed. Most of the forms seem to be of very local distribution, hence it may be expected that a good many others will be discovered by new explorations.

### Hoffmannia Valerii Standl., sp. nov.

Branched shrub 1-1.5 m. high, the older branches subterete, 6-8 mm. thick, the young branches subterete, their internodes 3.5-5.5 cm. long, when young densely villous with slender spreading pale hairs; stipules rounded, scarcely over 1 mm. long, caducous; petioles slender, 1–2 cm. long, villous; leaf blades elliptic or ovate-elliptic, 6.5–11 cm. long, 3.5–5.5 cm. wide, acute or acuminate with acute or obtuse tip, at base obtuse or rounded and abruptly or gradually decurrent, membranaceous, deep green on the upper surface, when young sparsely villous but soon glabrate, beneath somewhat paler, marked with numerous short linear cystoliths, villous along the nerves with slender, pale or brownish, spreading hairs, the costa and lateral nerves prominent beneath, the lateral nerves slender, ascending, arcuate, anastomosing very close to the margin; inflorescences cymose, few-flowered, dense, axillary, fasciculate, sessile or nearly so (peduncles in fruit sometimes 1 cm. long), the bracts caducous; pedicels 2-5 mm. long, glabrous or nearly so; hypanthium turbinate, 2 mm. long, glabrous or bearing a few short hairs; calyx lobes 4, narrowly triangular, 1 mm. long, acute or obtuse, sometimes bearing dorsally a few short hairs; corolla in bud lance-ovoid, acutish, 5-6 mm. long, shortvillous, the 4 lobes triangular-oblong, obtuse, 3 times as long as the tube; fruit subglobose, 6 mm. long, bright red, glabrous; seeds minute, subglobose, dark brown, coarsely and deeply pitted.

Type in the U. S. National Herbarium, no. 1,206,194, collected at El Arenal, Guanacaste, Costa Rica, altitude 600 meters, March 20, 1923, by Juvenal Valerio (no. 57). The following collections are from Guanacaste.

Costa Rica: El Arenal, in wet forest, Standley & Valerio 45217. Los Ayotes, alt. 600 m., Standley & Valerio 45437.

This species is well marked by the villous nerves of the leaves and by the very short corolla tube.

<sup>1</sup> Published by permission of the Secretary of the Smithsonian Institution. For the last preceding paper of this series see This JOURNAL 18: 160. 1928. Received December 9, 1927.

#### Hoffmannia inamoena Standl., sp. nov.

Simple erect shrub 1-1.5 m. high, the stems stout, subterete, with short or elongate internodes, the young branches densely and minutely puberulent; stipules ovate, 1.5 mm. long, caducous; leaves opposite, the petioles slender, 1-4.5 cm. long, densely puberulent; leaf blades chiefly elliptic, sometimes ovate-elliptic, rarely oblong-ovate, 8-20 cm. long 3.5-10 cm. wide, abruptly acute or acuminate, rarely long-acuminate, with acute or obtuse, often falcate tip, at base obtuse to rounded and abruptly long-decurrent, membranaceous, green and glabrous above, beneath paler, densely and minutely puberulent beneath upon the nerves and sometimes, at least when young, over the whole surface, the costa stout, prominent, the lateral nerves slender, about 16 on each side, divaricate, usually arcuate, anastomosing to form a distinct collective nerve close to the margin, the ultimate nerves prominulous closely reticulate; flowers fasciculate in the leaf axils or in sessile or short-pedunculate, 2 to 4-flowered cymes, the pedicels in fruit 1-4 mm. long, short-villous; calvx lobes 4, triangular-oblong, 1-2 mm. long, obtuse, short-villous; fruit subglobose, 6-7 mm. long, white, juicy, copiously villous; seeds minute, dark brown, coarsely and deeply pitted.

Type in the U. S. National Herbarium, no. 1,254,102, collected in wet forest at Los Ayotes, near Tilarán, Guanacaste, Costa Rica, altitude 600 meters, January 21, 1926, by Paul C. Standley and Juvenal Valerio (no.

45421). The following collections from Guanacaste may be cited:

COSTA RICA: Los Ayotes, Standley & Valerio 45432, 45345, 45529. El Arenal, alt. 500 m., Standley & Valerio 45214, 45181. Quebrada Serena, Standley & Valerio 46270, 46170, 46195.

Although flowers have not been collected, this plant is evidently distinct from all species of *Hoffmannia* previously described from Costa Rica. It is recognizable by its pale (when dried) leaves and the minute dense puberulence of the nerves.

## Hoffmannia subauriculata Standl., sp. nov.

Decumbent shrub 1–1.5 m. long, the young branches obtusely quadrangular, glabrous, the internodes 5–7.5 cm. long; leaves opposite, sessile, elliptic-obovate, 15–22 cm. long, 7–9.5 cm. wide, abruptly short-acuminate, abruptly narrowed near the base into a petioliform portion about 2 cm. long and 1.5–2 cm. wide, rounded to subcordate at the base and amplexicaul, membranaceous, glabrous, deep green above, somewhat paler beneath, furnished with numerous minute cystoliths, the costa prominent beneath, stout, the lateral nerves about 15 on each side, slender, prominent, divaricate, strongly arcuate, anastomosing close to the margin; inflorescences borne on the naked older branches below the leaves, lax, many-flowered, cymose-paniculate, on slender peduncles 6.5–9 cm. long, the panicles about 5 cm. long, glabrous; bracts deciduous; pedicels slender, 6–12 mm. long; fruit oval or subglobose, 2-celled, bright red, glabrous, about 8 mm. long; calyx lobes 4, deltoid, acutish, 1 mm. long, glabrous, erect; seeds minute, subglobose, brown, coarsely pitted.

Type in the U. S. National Herbarium, no. 1,306,554, collected in moist forest at El Muñeco, on the Río Navarro, Province of Cartago, Costa Rica, altitude 1,400 meters, March 6-7, 1926, by Paul C. Standley and Rubén

Torres Rojas (no. 50956).

This species may be recognized by its sessile leaves with broad bases.

## Hoffmannia piratarum Standl., sp. nov.

Shrub, the young branchlets stout, obtusely quadrangular, glabrous, the internodes 1.5-3 cm. long; stipules caducous; leaves opposite, the petioles slender, 2.5-4.5 cm. long, glabrate; leaf blades lance-oblong, 10.5-20 cm. long, 5-6 cm. wide, long-acuminate, the acumen narrow, long-attenuate, often falcate, the blades membranaceous, deep green above, glabrous, beneath paler, when very young sparsely short-villous with ferruginous hairs but soon glabrate, the costa prominent, rather stout, the lateral nerves 8 or 9 on each side, very slender, strongly ascending, arcuate, irregularly anastomosing close to the margin; inflorescences axillary, solitary or fasciculate, cymose, dense, few-flowered, 3 cm. long or shorter, the peduncles 2.5 cm. long or shorter, glabrous or nearly so, the bracts caducous; pedicels 2-5 mm. long, usually sparsely short-villous; hypanthium 3 mm. long, glabrous or sparsely shortvillous; calyx lobes 4, triangular-oblong, 2-3 mm. long, acute, villous-ciliate with short hairs; corolla 1 cm. long, in bud oblong, obtuse, glabrous or with a few short hairs at apex, the tube obconic, 2 mm. wide at base, 5 mm. wide in the throat, the 4 lobes oblong-triangular, slightly shorter than the tube; fruit subglobose, 2-celled, 6 mm. long, glabrous; seeds minute, subglobose, dark brown, coarsely and deeply pitted.

Type in the U.S. National Herbarium, no. 579835, collected in wet forest in the Wafer Valley, Cocos Island, Costa Rica, altitude 200 meters or less,

January, 1902, by H. Pittier (no. 16259).

This insular plant is related to *H. angustifolia* Standl. and *H. psychotriae-folia* (Benth.) Griseb., but differs from both in its ciliate calyx lobes.

## Hoffmannia ramonensis Standl, sp. nov.

Shrub, the older branches stout, terete, the younger ones glabrous or nearly so, the internodes 2-6.5 cm. long; stipules caducous; leaves opposite, sessile or nearly so, obovate-oblong, 14-28 cm. long, 5.5-10 cm. wide, acute, gradually narrowed below the middle, then rather abruptly long-attenuate into a petioliform portion 3-6 cm. long, this 1.5 cm. wide or narrower, acute at base, the blades membranaceous, deep green and glabrous above, beneath paler, when very young densely tomentose with loose brownish hairs, in age glabrate except along the short-villous nerves, the costa slender, prominent beneath, the lateral nerves about 14 on each side, slender, prominent, divaricate, arcuate, anastomosing close to the margin, the lower surface marked with very numerous short linear cystoliths; cymes axillary, solitary or fasciculate, umbelliform, mostly 2 to 5-flowered, the peduncles stout, 6-15 mm. long, densely brown-tomentose, the bracts caducous; pedicels stout, 2-4 mm. long, densely villous-tomentose; hypanthium turbinate, 2.5-3 mm. long, browntomentose; calyx lobes 4, narrowly triangular, 1.5-2 mm. long, narrowed to an obtuse apex, brown-villous on the outer surface; corolla in bud oblongovoid, obtuse, 6-7 mm. long, obtuse, densely villous-tomentose with brown hairs; anthers linear, 5 mm. long, narrowed to the acutish apex.

Type in the U. S. National Herbarium, no. 861910, collected along the Río Barranca at San Juan, near San Ramón, Costa Rica, altitude 1,300 to

1,400 meters, April 25, 1913, by A. Tonduz (no. 17812).

Hoffmannia ramonensis is well marked by its large, essentially sessile leaves and densely tomentose inflorescence.

#### Hoffmannia dotae Standl., sp. nov.

Erect branched shrub 2.5-4.5 m. high, the young branches obtusely quadrangular, glabrous or sparsely villous, the internodes 2.5-10.5 cm. long; stipules caducous; petioles 2 cm. long or shorter, often marginate to the base, glabrous; leaf blades oblong-obovate to obovate-elliptic, 19-29 cm. long, 7.5-12 cm. wide, abruptly short-acuminate with acute or obtuse tip, narrowed toward the base and abruptly long-decurrent, membranaceous, deep green and glabrous above, paler beneath, marked with numerous short pale cystoliths, at first sparsely short-villous along the nerves but soon glabrate, the costa stout, prominent, the lateral nerves about 15-17 on each side, arcuate-divaricate, anastomosing close to the margin; cymes solitary or fasciculate in the leaf axils, lax, few-flowered, 5.5 cm. long or shorter, the peduncles sometimes 3.5 cm. long; bracts caducous; pedicels 4-12 mm. long, sparsely or densely shortvillous; hypanthium turbinate, 4 mm. long, sparsely short-villous; calyx lobes 2.5-3.5 mm. long, unequal, triangular or narrowly triangular, narrowed to the obtuse or acutish apex, sparsely villous; corolla red below, yellow above, 15 mm. long, glabrous or sparsely villous on the lobes, acuminate in bud, the tube 4 mm, thick, the 4 lobes linear-lanceolate, equaling the tube; anther tips slightly exceeding the corolla tube; stigma oblong, much exceeding the anthers; fruit red, oblong, 8-9 mm. long, 4 mm. thick, 2-celled, sparsely villous; seeds minute, yellowish, shallowly and coarsely pitted.

Type in the U. S. National Herbarium, no. 1,253,172, collected in moist forest near Santa María de Dota, Province of San José, Costa Rica, altitude about 1,700 meters, December, 1925, by Paul C. Standley and Juvenal Valerio (no. 43277). Nos. 43286 and 43293, from the same locality, also represent

this species.

Hoffmannia dotae is related to H. josefina Standl., which has a smaller corolla, denser inflorescence, and obtuse flower buds.

## Hoffmannia trichocalyx Standl., sp. nov.

Large weak shrub, 1-2.5 m. long, often decumbent, the branches thick and stout, terete, ochraceous, rimose, the young branchlets obtusely quadrangular, their internodes 1-4 cm. long, thinly villous or often glabrous; stipules caducous; leaves opposite, the petioles slender, 1.5-7 cm. long, sparsely villous or glabrous; leaf blades elliptic to oblong-elliptic, rarely ovate or obovate, 12-26 cm. long, 4.5-10 cm. wide, abruptly acuminate with acute tip, cuneate to obtuse at base, usually abruptly contracted and short-decurrent, chartaceous, deep green and glabrous on the upper surface, beneath usually villous along the nerves but sometimes glabrate, the costa slender, prominent, the lateral nerves 10-14 on each side, divaricate, strongly arcuate, prominent, extending nearly to the margin; inflorescences pendent, borne on naked stems below the leaves, fasciculate, 2.5-14 cm. long, few or many-flowered, the peduncles long and slender, usually short-villous, dark red, the bracts deciduous; pedicels 3-6 mm. long, sparsely or densely villous; hypanthium turbinate, dark red, 4 mm. long, densely or sparsely villous; calyx lobes 4, broadly deltoid, acutish, 2 mm. long, sparsely or densely villous; corolla 1 cm. long, bright yellow or red and yellow, glabrous or sparsely villous outside, the tube 3 mm. thick, cylindric, the lobes triangular-oblong, narrowed to the obtuse apex, about equaling the tube; fruit 2-celled, oval, 8 mm. long, 5 mm. thick, dark red, glabrous or sparsely villous.

Type in the U. S. National Herbarium, nos. 1,305,242–3 (both from the same plant), collected in wet forest at Fraijanes, Province of Alajuela, Costa Rica, altitude about 1,600 meters, February 12, 1926, by Paul C. Standley and Rubén Torres Rojas (no. 47690). Additional collections are at hand, as follows:

Costa Rica: Fraijanes, Standley & Torres 47819, 47480, 47924.

The nearest relative of this species is *H. leucocarpa* Standl., also Costa Rican, which has a glabrous inflorescence and white fruit.

## Chomelia (?) sylvicola Standl., sp. nov.

Shrub, glabrous throughout, the branches slender, subterete, the older ones grayish, rimose, the younger ones green, smooth, the internodes 1.5-6.5 cm. long; stipules distinct, ovate-oval, 3 mm. long, obtuse, green, deciduous; leaves opposite, the petioles slender, 7-12 mm. long; leaf blades elliptic-oblong, 6.5-8 cm. long, 2.2-2.8 cm. wide, rather abruptly attenuate to an obtuse tip, acute and decurrent at base, subcoriaceous, deep green above, dull, the venation inconspicuous, beneath somewhat paler, domatiate in the axils of the nerves, the costa slender, prominent, the lateral nerves about 6 on each side, ascending, arcuate, irregularly and laxly anastomosing near the plane margin; inflorescence terminal, cymose-paniculate, open, rather few-flowered, the peduncle 2 cm. long, the branches slender, stiff, the bracts triangular, 1-1.5 mm. long, green; pedicels slender, 10-12 mm. long, stiff; fruit obovoid, terete, finely costate, about 18 mm. in total length and 7 mm. in diameter, acute at base, lustrous, prolonged within the calyx into a conic obtuse projection 4-5 mm. long, 2-celled, the endocarp hard and osseous; calyx persistent, cuplike, 2 mm. long, green, the margin undulate.

Type in the U. S. National Herbarium, no. 1,305, 902, collected in wet forest at Yerba Buena, northeast of San Isidor, Province of Heredia, Costa Rica, altitude about 2,000 meters, February 22, 1926, by Paul C. Standley and Juvenal Valerio (no. 49196).

It is improbable that this plant belongs to the genus *Chomelia*, especially in view of its terminal inflorescence, but I have not been able to refer it satisfactorily to any other group.

## Guettarda poasana Standl., sp. nov.

Shrub or small tree 3-6 m. high, the branchlets stout, compressed, glabrous, the internodes short; stipules ovate, about 2 cm. long, long-acuminate, thin, brown, glabrous, deciduous; leaves opposite, the petioles slender, 2-7 cm. long, glabrous, the blades elliptic, broadly elliptic, or elliptic-ovate, 13-19 cm. long, 5-9 cm. wide, acutish to short-acuminate at base, short-acuminate at apex, membranaceous, green above, glabrous or when young very sparsely short-pilose, the venation mostly plane, paler beneath, appressed-pilose when young, glabrate in age, the costa and lateral nerves very slender, prominent, the lateral nerves 8 or 9 on each side, arcuate, extending nearly to the margin, the intermediate veins inconspicuous, the margin plane; peduncles 3 cm. long or shorter, glabrous, the cymes bifurcate, about 9-flowered, the branches short; flowers sessile, the bractlets minute; calyx and hypanthium together 2-2.5 mm. long, the hypanthium glabrous or nearly so; calyx shallowly dentate, puberulent or glabrous; corolla pink, densely tomentose outside, the tube 15-20 mm. long, 2.5 mm. thick in the throat, the lobes suborbicular, 4 mm. long.

Type in the U. S. National Herbarium, no. 1,305,283, collected in wet forest at Viento Fresco, on the slopes of Poás Volcano, Province of Alajuela, Costa Rica, altitude about 1,800 meters. February 13, 1926, by Paul C. Standley and Rubén Torres Rojas (no. 47807). The following additional specimens have been seen:

Costa Rica: Valley of Río Poás, alt. 2,100 m., Pittier 2399. Las Nubes,

Prov. San José, alt. 1,800 m., Standley 38755, 38777.

Closely related to *G. crispiflora* Vahl, which also occurs in Costa Rica but is distinguished by its pilose stipules and densely tomentose hypanthium

#### Guettarda Deamii Standl., sp. nov.

Tree 3.5–4.5 m. high, the branches blackish, lenticellate, the branchlets stout, densely short-pilose, the internodes short; stipules ovate-oblong, 2.5–4 mm. long, obtuse or acutish, appressed-pilose outside, soon deciduous; leaves opposite, the petioles stout, 5–9 mm. long, densely short-pilose; leaf blades mostly oval, sometimes oblong-oval or obovate-oval, 4–8.5 cm. long, 2.5–4.5 cm. wide, rounded at base, broadly rounded at apex, chartaceous, green above, densely short-pilose or pilose-scaberulous, the venation prominulous but more or less imbedded, beneath paler, densely velutinous-pilosulous, the costa and lateral nerves prominent, the lateral nerves 8–10 on each side, subarcuate, ascending at an angle of 50 degrees or more, the intermediate veins prominulous, laxly reticulate, the margin recurved; cymes subcapitate, 3 to 5-flowered, the peduncles very stout, 3–10 mm. long, densely short-pilose, the flowers sessile; bractlets subulate, 3–4 mm. long, persistent; fruit globose, about 8 mm. in diameter, 3 or 4-celled, minutely tomentulose.

Type in the U. S. National Herbarium, no. 796136, collected on mountain ridges near Gualán, Guatemala, altitude 185 meters, June 15, 1909, by C. C.

Deam (no. 6271).

A relative of *G. macrosperma* Donn. Smith, which has chiefly acute leaves, with closely appressed pubescence.

## Psychotria hondensis Standl., sp. nov.

Shrub 3 m. high, the young branches stout, greenish (older ones ochraceous), obtusely quadrangular, densely puberulent or pubescent with short-spreading hairs, the internodes mostly 1.5–3 cm. long; stipules persistent, erect, stiff, short-connate, broadly triangular, narrowed to the obtuse apex, densely puberulent; leaves opposite, the petioles stout, 1.3-3.5 mm. long, puberulent; leaf blades broadly elliptic to elliptic-oblong, 17.5-29 cm. long, 6-15 cm. wide, narrowed to the acute to acuminate apex, often abruptly acuminate, acute or acuminate at base and often abruptly decurrent, membranaceous, deep green above, glabrous, the venation not elevated, beneath slightly paler, densely velutinous-pubescent with short spreading hairs, the costa and lateral nerves slender, prominent, the lateral nerves 9-11 on each side, ascending, usually at a wide angle, slightly arcuate, anastomosing close to the margin; inflorescence terminal, cymose-paniculate, erect, the peduncle stout, 4-5.5 cm. long; panicles open, rather few-flowered, 5-11 cm. broad, usually broader than long, the primary branches few, opposite or verticillate, stout, divaricate, pubescent with short spreading hairs; flowers sessile or nearly so; hypanthium semiglobose, 2 mm. long, densely pubescent with minute spreading hairs; calyx 2.5 mm. long, subtruncate, distantly and obscurely repand-dentate, the

teeth 5; corolla in bud 11 mm. long, densely puberulent-tomentose with fulvous pubescence, the buds obtuse; fruit subglobose, green, about 13 mm. in diameter, glabrate; pyrenes 2, 1 cm. long, nearly smooth dorsally, plane on the inner surface; seeds semiglobose, 7 mm. long, brown, deeply and narrowly sulcate from base to apex on the inner surface.

Type in the U. S. National Herbarium, no. 764151, collected in forests of the Río Hondo, Atlantic slope of Costa Rica, altitude 100 meters, August, 1901, by H. Pittier (no. 16161). The following are additional collections:

COSTA RICA: La Colombiana Farm, Province of Limón, alt. 70 m., Standley 36883, 36775.

This species is characterized by its large, broad, copiously pubescent leaves, and large fruit.

## Psychotria Heydei Standl., sp. nov.

Young branches stout, subterete, densely villous with short spreading brownish multicellular hairs, the internodes short; stipules persistent, united to form a truncate interpetiolar sheath 3-4 mm. long, this densely short-villous; leaves opposite, the petioles stout, 1.5-4 cm. long, villous-tomentose; leaf blades elliptic-oblong, broadest at the middle, 11.5-26 cm. long, 5.5-10.5 cm. wide, acuminate, often rather abruptly so, at base obtuse to rounded, sometimes very shortly decurrent, thick-membranaceous, green above, villoushirsute with slender yellowish hairs, beneath scarcely paler, densely villoushirsute, the costa stout, prominent, the lateral nerves slender, prominent, about 15 on each side, arcuate-ascending, anastomosing very close to the margin, the intermediate nerves usually evident, coarsely reticulate; inflorescence terminal, cymose-paniculate, the peduncle stout, erect, 5.5-12.5 cm. long; panicles much branched, lax, many-flowered, 6-9 cm. long, 8-17 cm. wide, the primary branches opposite or verticillate, divaricate or reflexed, stout, densely villous-hirsute; bracts persistent, triangular-subulate, 7 mm. long or shorter, short-villous; flowers mostly sessile, but sometimes on pedicels as much as 8 mm. long; hypanthium 2 mm. long, densely villous; calyx 1.5-2 mm. long, 5-lobate, the lobes triangular, acutish; corolla funnelform, 13-14 mm. long, densely short-villous, the tube gradually widened upward, 3 mm. broad in the throat, the 5 lobes ovate, obtuse, 3 mm. long; anthers oblonglinear, nearly sessile, included, 3 mm. long.

Type in the U. S. National Herbarium, no. 939642, collected at Chiul, Department of Quiché, Guatemala, altitude 2,600 meters, April, 1892, by Heyde and Lux (no. 3173).

The dense pubescence and large panicles distinguish this plant among the Central American species of *Psychotria*.

# Psychotria dispersa Standl., sp. nov.

Densely branched, erect shrub, 1–2 m. high, the branches slender, terete, green, the young branches usually densely pilose with short spreading whitish hairs, sometimes merely puberulent or glabrate, the internodes short or elongate; stipules green, persistent, connate into a sheath 2.5–3 mm. long, puberulent, the sheath bicuspidate on each side, the cusps 3–6 mm. long, linear, rigid, erect; leaves opposite, the petioles slender, 5–13 mm. long, minutely puberulent; leaf blades oblong-elliptic to rarely lance-oblong, 5–10.5 cm. long, 2–4 cm. wide, abruptly acuminate or long-acuminate, or cuspidate-acuminate, with acutish, often falcate acumen, narrowed to the acute, often decurrent